

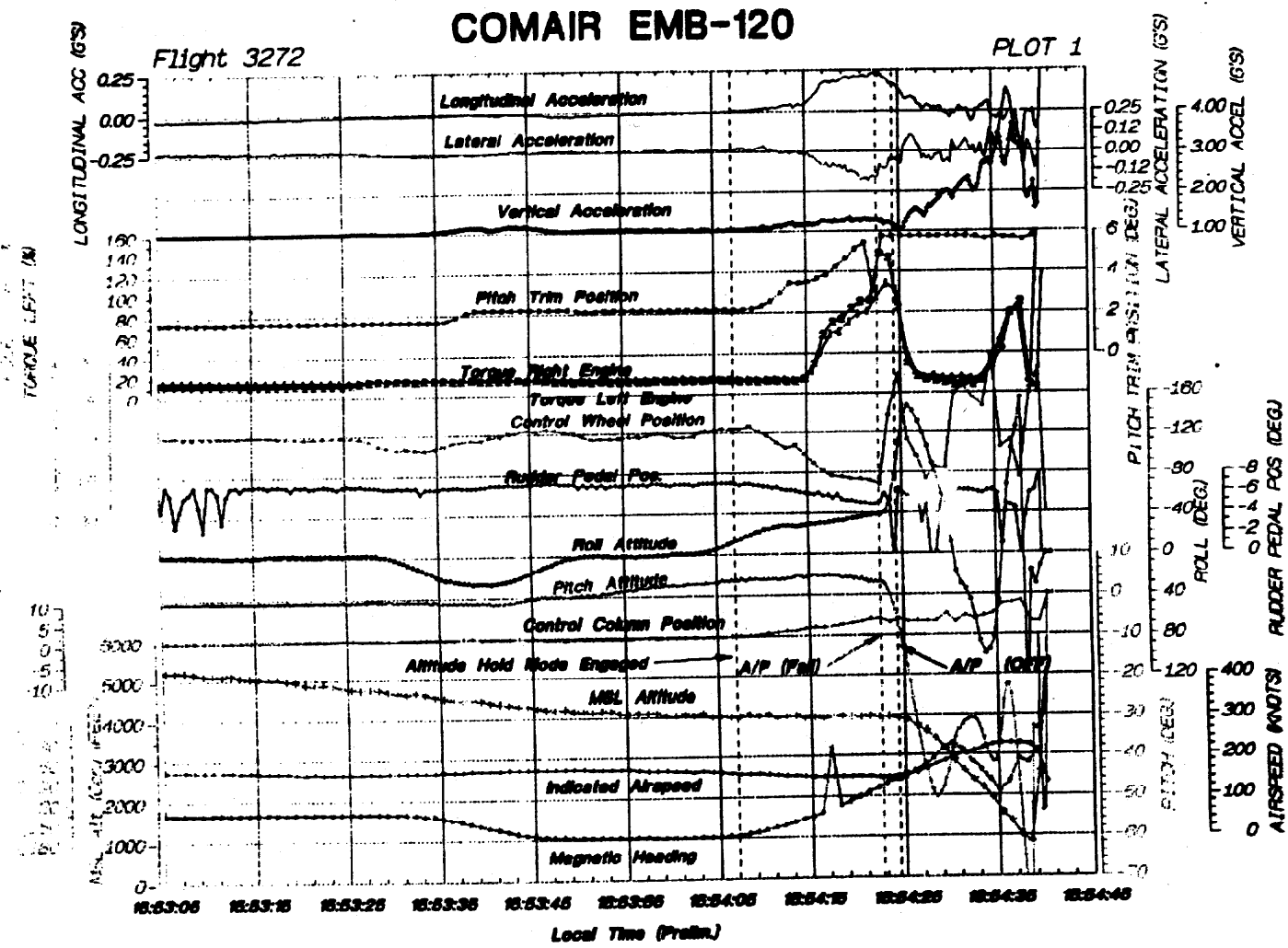
## APPENDIX C—FLIGHT DATA RECORDER PARAMETERS/PLOTS

| PARAMETER NAME                    | RANGE              | RESOLUTION | SCALE | PLOTS                                   |
|-----------------------------------|--------------------|------------|-------|---|
| 1. TIME                           | 25 HOURS           | 1/768 SEC. | 1/768 | 1 sf all                                |
| 2. PRESSURE ALTITUDE              | -1000 - 40000 FT.  | 10 FT.     | 1     | 23 (upper) sf all<br>5 (lower) sf all   |
| 3. AIRSPEED                       | 60 - 450 KNOTS     | 1 KNOT     | 1     | 18 sf all                               |
| 4. VERTICAL ACCELERATION          | -3 - +6 "G"        | 0.0023 "G" | 1/8   | 4, 12, 20, 28, 36,<br>44, 52, 60 sf all |
| 5. LATERAL ACCELERATION           | -1 - +1 "G"        | 0.0005 "G" | 1/4   | 8, 24, 40, 56 sf all                    |
| 6. LONGITUDINAL ACCELERATION      | -1 - +1 "G"        | 0.0005 "G" | 1/4   | 9, 21, 41, 57 sf all                    |
| 7. MAGNETIC HEADING               | 0 - 360            | 0.356      | 1     | 7 sf all                                |
| 8. PITCH ATTITUDE                 | ±75                | .087       | 1/4   | 10, 26, 42, 58 sf all                   |
| 9. ROLL ATTITUDE                  | ±180               | .087       | 1/2   | 17, 49 sf all                           |
| 10. PITCH TRIM                    | -9 - +50           | .0022      | 1/2   | 14 sf all                               |
| 11. CONTROL COLUMN POSITION       | 8 (FWD), 12 (AFT)  | .0058      | 1     | 6 (lt.), 38 (rt.) sf all                |
| 12. CONTROL WHEEL POSITION        | 52 (Lt.), 52 (Rt.) | .0549      | 1     | 11 (lt.), 43 (rt.) sf<br>all            |
| 13. RUDDER PEDAL POSITION         | 16 (Lt), 16 (Rt.)  | .0078      | 1     | 13 (lt.), 45, (rt.) sf<br>all           |
| 14. FLAP POSITION                 | 0 - 45             | .0186      | 2     | 37 sf 1,3                               |
| 15. STATIC AIR TEMP.              | -99 - +50 C        | .1576      | 2     | 37 sf 2,4                               |
| 16. FUEL FLOW (LEFT & RIGHT)      | 0 - 1200 (PPH)     | .2930      | 1     | 50 (lt.), 51 (rt.) sf<br>all            |
| 17. NH (LEFT & RIGHT)             | 0 - 120%           | .0359      | 1     | 15 (lt.), 16 (rt.) sf<br>all            |
| 18. NL (LEFT & RIGHT)             | 0 - 120%           | .0369      | 1     | 31 (lt.), 32 (rt.) sf<br>all            |
| 19. PROP IMBAL.(LEFT & RIGHT)     | 0. - 1.11 "G"      | .0002      | 2     | 33 (lt.), 33 (rt.)<br>sf1,3 , sf 2,4    |
| 20. PROP RPM (LEFT & RIGHT)       | 25. - 120%         | .1         | 1     | 47 (lt.), 48 (rt.) sf<br>all            |
| 21. T6 TEMP (LEFT & RIGHT)        | 0 - 1200 C         | .2930      | 1     | 19 (lt.), 35 (rt.) sf<br>all            |
| 22. ENG. TORQUE (LEFT & RIGHT)    | 0 - 150%           | .0366      | 1     | 39 (lt.), 55 (rt.) sf<br>all            |
| 23. ANGLE OF ATTACK (#1 & #2)     | × 30 °             | .0161      | 1/2   | 22,54 (#1) sf all<br>27,59 (#2) sf all  |
| 24. RADIO ALTITUDE                | -20 to 2,500 ft.   | .2         | 1     | 46 sf all                               |
| 25. GLIDE SLOPE DEVIATION #1      | ×.22 DDM           | .0004      | 1     | 29 sf all                               |
| 26. LOCALIZER DEVIATION #1        | ×.22 DDM           | .0004      | 1     | 21 sf all                               |
| 27. GLIDE SLOPE DEVIATION #2      | ×.22 DDM           | .0004      | 1     | 61 sf all                               |
| 28. LOCALIZER DEVIATION #2        | ×.22 DDM           | .0004      | 1     | 34 sf all                               |
| 29. NAV. #1 FREQUENCY<br>SELECTED | MHz                | BCD        | 4     | 53 sf 1                                 |
| 30. NAV. #2 FREQUENCY<br>SELECTED | MHz                | BCD        | 4     | 53 sf 3                                 |

| PARAMETER NAME                     | RANGE                              | RESOLUTION | SAMPLING INTERVAL (SECONDS) | WORD & SUBFRAME (sf) LOCATION(S)                     |
|------------------------------------|------------------------------------|------------|-----------------------------|--|
| 31. DME #1 DISTANCE                | NM                                 | .125       | 4                           | 53 sf 2  |
| 32. DME #2 DISTANCE                | NM                                 | .125       | 4                           | 53 sf 4  |
| <b>DISCRETE PARAMETERS</b>         |                                    |            |                             |  |
| 33. AIR/GROUND SWITCH              | 1 = AIR                            | N/A        | 1                           | 30 (bit 7) sf all                                    |
| 34. BETA MODE (LEFT & RIGHT)       | 1 = ENGAGED                        | N/A        | 1                           | (lt.) 30 (bit 5) sf all<br>(rt.) 30 (bit 6) sf all   |
| 35. BLEED AIR (LEFT & RIGHT)       | 1 = CLOSED                         | N/A        | 1                           | (lt.) 30 (bit 11) sf all<br>(rt.) 30 (bit 12) sf all |
| 36. CONDITION LEVER POS. (Lt.&Rt.) | 1 = ON                             | N/A        | 1                           | (lt.) 30 (bit 8) sf all<br>(rt.) 30 (bit 9) sf all   |
| 37. EVENT MARKER                   | 1 = ON                             | N/A        | 1                           | 30 (bit 10) sf all                                   |
| 38. PRESS TO TALK (Ch. 1 THRU 4)   | 1 = TALK<br>0 = OFF                | N/A        | 1                           | 30 (bit 1-4) sf all                                  |
| 39. HYDRAULIC LOW PRESS #1&# 2     | 0= LOW<br>1 = NORMAL               | N/A        | 1                           | #1 - 3 (bit 1) sf all<br>#2 - 54 (bit 2) sf all      |
| 40. CONDITION LEVER POS. #1 & #2   | 1 = POWER<br>0 = SHUT OFF          | N/A        | 1                           | #1-30(bit 8) sf all<br>#2-30(bit 9) sf all           |
| 41. LANDING GEAR POSITION          | 1 = NOT DOWN<br>0 = DOWN           | N/A        | 4                           | 3 (bit 2) sf 4                                       |
| 42. BLEED CONDITION (Lt. & Rt.)    | 0 = OPERATING<br>1 = NOT OPERATING | N/A        | 1                           | Lt. 30 (bit 11) sf all<br>Rt. 30 (bit 12) sf all     |
| 43. PW118A/PW118 SELECT            | 1 = PW118A<br>0 = PW118            | N/A        | 4                           | 3 (bit 3) sf 4                                       |
| 44. AUTO PILOT ENGAGE              | 0 = ENGAGED<br>1 = NOT ENGAGED     | N/A        | 1                           | 8 (bit 1) sf all                                     |
| 45. ENGAGE AUTO PILOT              | 0 = ENGAGED<br>1 = NOT ENGAGED     | N/A        | 1                           | 49 (bit 1) sf all                                    |
| 46. AUTO PILOT SELECTED            | 0 = A/P #1<br>1 = A/P #2           | N/A        | 1                           | 8 (bit 2) sf all                                     |
| 47. AUTO PILOT DISCONNECT          | 0 = DISCONNECTED<br>1 = ENGAGED    | N/A        | 1                           | 38 (bit 1) sf all                                    |
| 48. AUTO PILOT FAIL MODE           | 0 = FAIL<br>1 = NOT FAIL           | N/A        | 1                           | 43 (bit 1) sf all                                    |
| 49. ALTITUDE PRE SELECT (ARM)      | 0 = ARMED<br>1 = NOT ARMED         | N/A        | 1                           | 6 (bit 1) sf all                                     |
| 50. CAPTURE TRACK                  | 0 = CAPTURE<br>1 = NOT CAPTURED    | N/A        | 1                           | 6 (bit 2) sf all                                     |
| 51. NAV -1 ARM                     | 0 = ARM<br>1 = NOT ARM             | N/A        | 1                           | 7 (bit 1) sf all                                     |
| 52. NAV -1 CAPTURE                 | 0 = CAPTURE<br>1 = NOT CAPTURE     | N/A        | 1                           | 7 (bit 2) sf all                                     |
| 53. GLIDESLOPE ARM                 | 0 = ARM<br>1 = NOT ARM             | N/A        | 1                           | 9 (bit 1) sf all                                     |
| 54. GLIDESLOPE CAPTURE             | 0 = CAPTURE<br>1 = NOT CAPTURE     | N/A        | 1                           | 9 (bit 2) sf all                                     |
| 55. GLIDESLOPE EXT                 | 0 = EXT<br>1 = NOT EXT             | N/A        | 1                           | 10 (bit 1) sf all                                    |
| 56. IAS HOLD                       | 0 = HOLD<br>1 = NOT HOLD           | N/A        | 1                           | 10 (bit 2) sf all                                    |
| 57. ALT HOLD                       | 0 = HOLD<br>1 = NOT HOLD           | N/A        | 1                           | 11 (bit 1) sf all                                    |
| 58. SYNC SWITCH                    | 0 = SWITCH<br>1 = NOT SWITCH       | N/A        | 1                           | 11 (bit 2) sf all                                    |

| PARAMETER NAME           | RANGE                          | RESOLUTION | SAMPLING INTERVAL (SECONDS) | WORD & SUBFRAME (sf) LOCATION(S) |
|--------------------------|--------------------------------|------------|-----------------------------|----------------------------------|
| 59. APPROACH ARM         | 0 = ARM<br>1 = NOT ARM         | N/A        | 1                           | 13 (bit 1) sf all                |
| 60. APPROACH CAPTURE     | 0 = CAPTURE<br>1 = NOT CAPTURE | N/A        | 1                           | 13 (bit 2) sf all                |
| 61. GO AROUND ROLL       | 0 = ENGAGED<br>1 = NOT ENGAGED | N/A        | 1                           | 17 (bit 1) sf all                |
| 62. GO AROUND PITCH      | 0 = ENGAGED<br>1 = NOT ENGAGED | N/A        | 1                           | 17 (bit 2) sf all                |
| 63. VERTICAL SPEED HOLD  | 0 = HOLD<br>1 = NOT HOLD       | N/A        | 1                           | 22 (bit 1) sf all                |
| 64. HEADING HOLD         | 0 = HOLD<br>1 = NOT HOLD       | N/A        | 1                           | 25 (bit 1) sf all                |
| 65. HEADING SELECT       | 0 = SELECT<br>1 = NOT SELECT   | N/A        | 1                           | 25 (bit 2) sf all                |
| 66. HALF BANK            | 0 = SELECT<br>1 = NOT SELECT   | N/A        | 1                           | 22 (bit 2) sf all                |
| 67. DEAD RECKONING       | 0 = SELECT<br>1 = NOT SELECT   | N/A        | 1                           | 26 (bit 1) sf all                |
| 68. BACK COURSE          | 0 = SELECT<br>1 = NOT SELECT   | N/A        | 1                           | 26 (bit 2) sf all                |
| 69. PITCH HOLD           | 0 = HOLD<br>1 = NOT HOLD       | N/A        | 1                           | 27 (bit 1) sf all                |
| 70. ROLL HOLD            | 0 = HOLD<br>1 = NOT HOLD       | N/A        | 1                           | 27 (bit 2) sf all                |
| 71. CLIMB HOLD           | 0 = HOLD<br>1 = NOT HOLD       | N/A        | 1                           | 33 (bit 1) sf all                |
| 72. PITCH TRIM FAIL      | 0 = FAIL<br>1 = NOT FAIL       | N/A        | 1                           | 33 (bit 2) sf all                |
| 73. OUT OF TRIM ELEVATOR | 0 = OUT OF TRIM<br>1 = IN TRIM | N/A        | 1                           | 41 (bit 1) sf all                |
| 74. OUT OF TRIM AILERON  | 0 = OUT OF TRIM<br>1 = IN TRIM | N/A        | 1                           | 41 (bit 2) sf all                |
| 75. OUT OF TRIM RUDDER   | 0 = OUT OF TRIM<br>1 = IN TRIM | N/A        | 1                           | 42 (bit 1) sf all                |
| 76. VBAR INVUE           | 0 = INVUE<br>1 = NOT INVUE     | N/A        | 1                           | 42 (bit 2) sf all                |
| 77. TRIM RUN MODE        | 0 = ENGAGED<br>1 = NOT ENGAGED | N/A        | 1                           | 43 (bit 2) sf all                |
| 78. DESCENT MODE         | 0 = ENGAGED<br>1 = NOT ENGAGED | N/A        | 1                           | 45 (bit 1) sf all                |
| 79. SOFT RIDE MODE       | 0 = ENGAGED<br>1 = NOT ENGAGED | N/A        | 1                           | 45 (bit 2) sf all                |
| 80. GO AROUND MODE       | 0 = ENGAGED<br>1 = NOT ENGAGED | N/A        | 1                           | 54 (bit 1) sf all                |
| 81. GPWS #1              | 0 = WARNING<br>1 = NORMAL      | N/A        | 1                           | 24 (bit 1) sf all                |
| 82. GPWS #2              | 0 = WARNING<br>1 = NORMAL      | N/A        | 1                           | 24 (bit 2) sf all                |
| 83. GPWS #3              | 0 = WARNING<br>1 = NORMAL      | N/A        | 1                           | 40 (bit 1) sf all                |
| 84. MASTER WARNING       | 0 = WARNING<br>1 = NORMAL      | N/A        | 1                           | 40 (bit 2) sf all                |
| 85. MASTER CAUTION       | 0 = CAUTION<br>1 = NORMAL      | N/A        | 1                           | 56 (bit 1) sf all                |

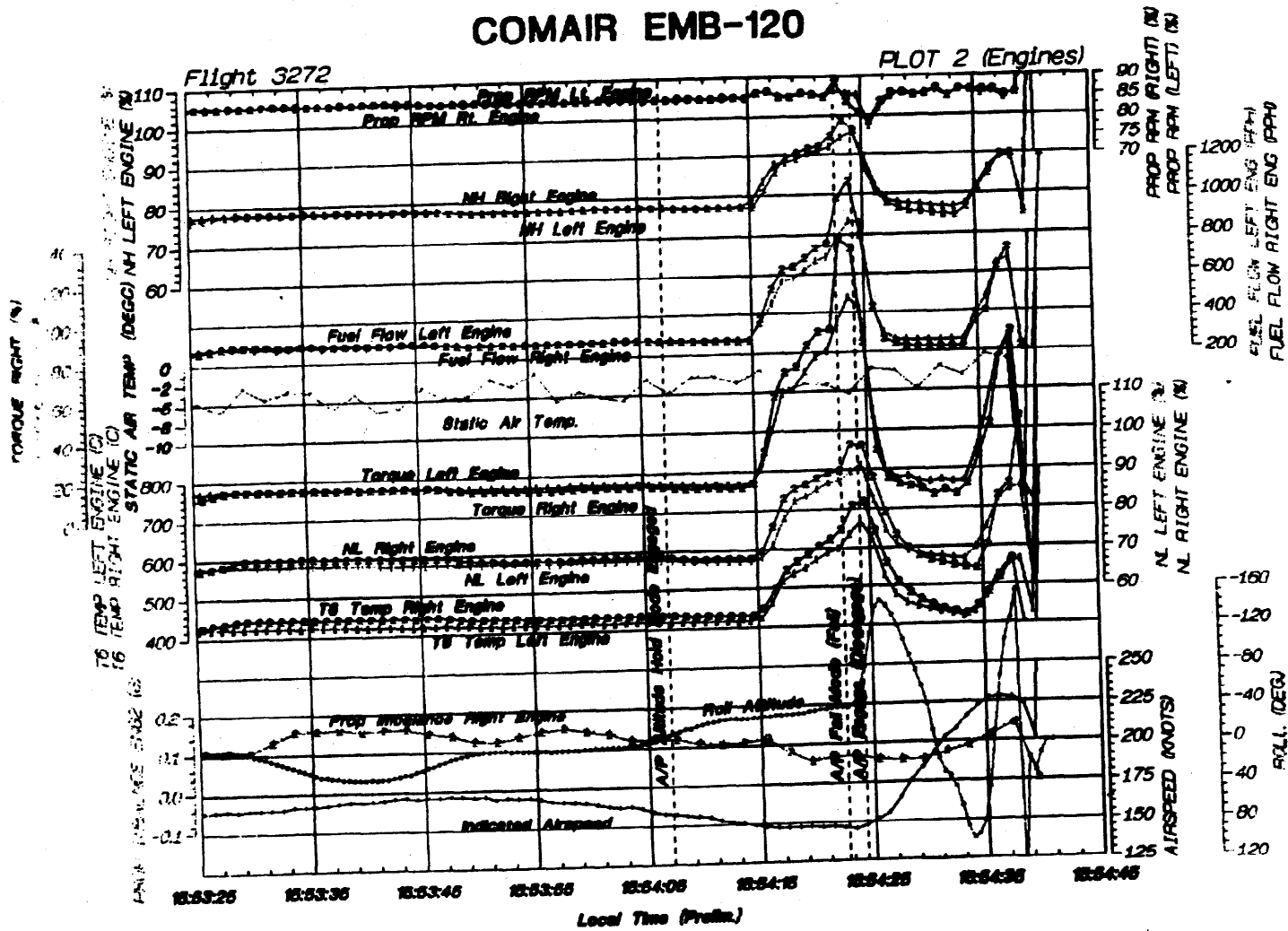
| PARAMETER NAME            | RANGE                             | RESOLUTION | SAMPLING INTERVAL (SECONDS) | WORD & SUBFRAME (sf) LOCATION(S)         |
|---------------------------|-----------------------------------|------------|-----------------------------|--|
| 86. MARKER INNER #1       | 0 = ON<br>1 = OFF                 | N/A        | 1                           | 57 (bit 1) sf all                        |
| 87. MARKER MIDDLE #1      | 0 = ON<br>1 = OFF                 | N/A        | 1                           | 57 (bit 2) sf all                        |
| 88. MARKER OUTER #1       | 0 = ON<br>1 = OFF                 | N/A        | 1                           | 58 (bit 1) sf all                        |
| 86. MARKER INNER #2       | 0 = ON<br>1 = OFF                 | N/A        | 1                           | 58 (bit 2) sf all                        |
| 87. MARKER MIDDLE #2      | 0 = ON<br>1 = OFF                 | N/A        | 1                           | 59 (bit 1) sf all                        |
| 88. MARKER OUTER #2       | 0 = ON<br>1 = OFF                 | N/A        | 1                           | 59 (bit 2) sf all                        |
| 89. YAW DAMPER DISCONNECT | 0 = DISCONNECTED<br>1 = CONNECTED | N/A        | 1                           | 38 (bit 2) sf all                        |
| 90. YAW DAMPER            | 0 = ENGAGED<br>1 = NOT ENGAGED    | N/A        | 1                           | 49 (bit 2) sf all                        |
| 91. AIRCRAFT ID           | N/A                               | N/A        | 4                           | 62 (bit 1-8) sf 1                        |
| 92. FLIGHT NO.            | N/A                               | N/A        | 4                           | 64 (bit 1-4) sf 2<br>64 (bit 1-12) sf 3- |
| 93. 429/CSDB SELECT       | 0 = ARINC 429<br>1 = CSDB         | N/A        | 4                           | 3 (bit 6) sf 4                           |
| 94. 120/123 SELECT        | 0 = CBA-123<br>1 = EMB-120        | N/A        | 4                           | 3 (bit 4) sf 4                           |
| 95. 145 SELECT            | 0 = SELECTED<br>1 = NOT SELECTED  | N/A        | 4                           | 3 (bit 5) sf 4                           |
| 96. GMT MIN:SEC           | N/A                               | N/A        | 1                           | 2 sf all                                 |
| 97. GMT HOURS             | N/A                               | N/A        | 4                           | 3 sf 1                                   |
| 98. DAY MONTH             | N/A                               | N/A        | 4                           | 3 sf 2                                   |
| 99. YEAR                  | N/A                               | N/A        | 4                           | 3 sf 3                                   |



Revised: April 08, 1997

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# COMAIR EMB-120



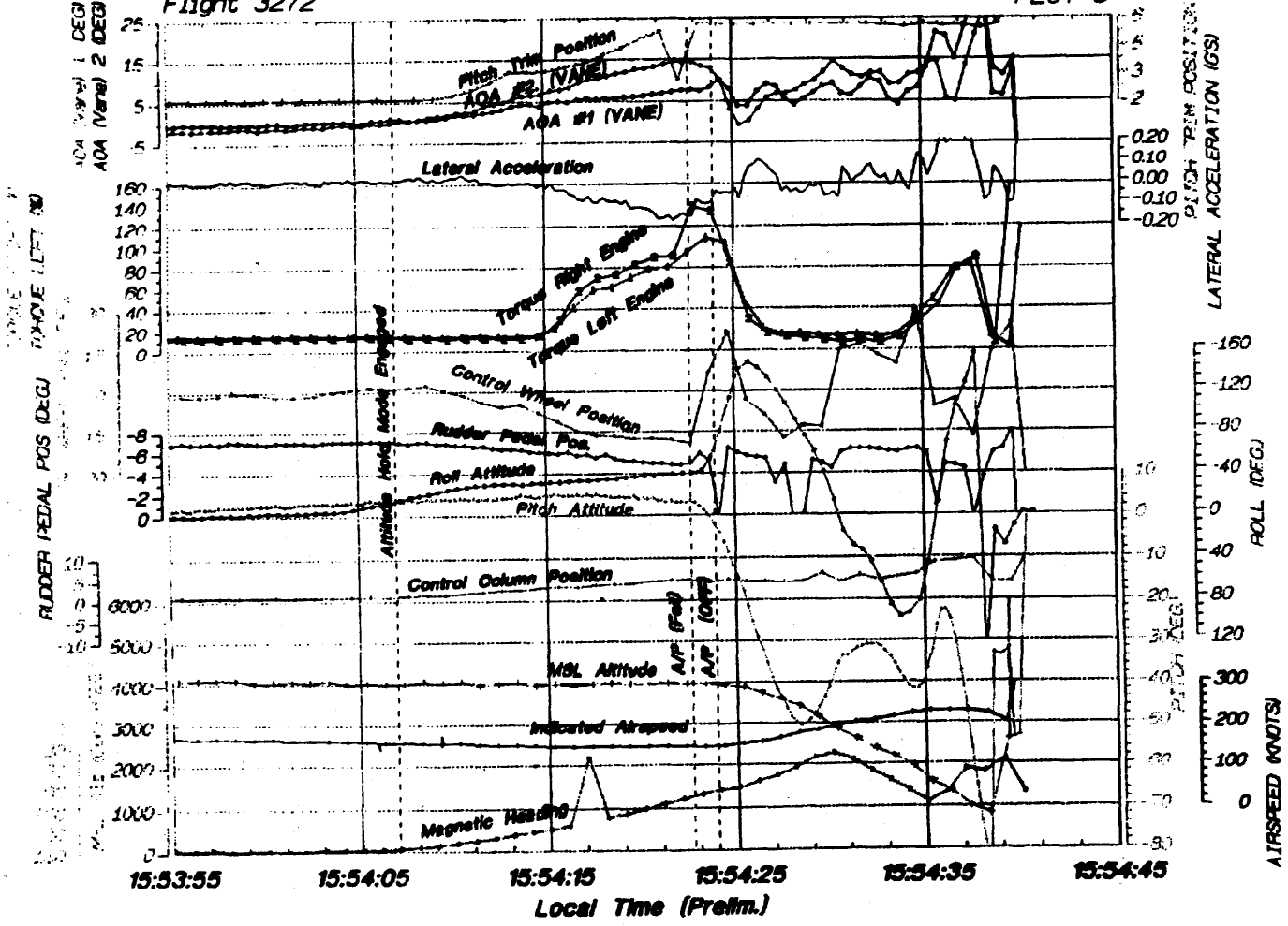
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# COMAIR EMB-120

Flight 3272

PLOT 3



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